Consistency with the 2012 Coastal Master Plan: Guidelines for Restoration Projects Receiving State Funding

The State of Louisiana's 2012 Coastal Master Plan (MP) is based on a two year analysis involving some of the state's best scientists, experts from federal agencies, national and international specialists, and input from stakeholders. The State used this analysis and additional stakeholder input to select projects that could deliver measurable benefits to our communities and coastal ecosystem over the coming decades. The plan shows that if these projects were fully funded, at a price tag of $50 billion, we could substantially increase flood protection for communities and create a sustainable coast.

The 2012 Master Plan was submitted to the legislature for approval on March 26, 2012 and was unanimously approved by the legislature on May 22, 2012. With the approval of the Master Plan, state agencies were directed by Executive Order BJ 08-07 to "administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with the Master Plan and public interest to the maximum extent possible."

To be consistent with the MP, a project must strive to achieve one or more of the MP's objectives and must not be detrimental or conflict with any projects in the MP. These projects can be implemented with local, federal or private funding. However, in order to be consistent with the MP and receive state funding support, a project must be included in the MP; that is, it must have the same general location, project type, and borrow source as a project identified in the MP. There are, of course, scenarios where on-the-ground conditions will necessitate adjustments to project configurations.

In an effort to accommodate projects that may not fall directly within a project location identified in the MP, CPRA has avoided making strict guidelines about the distance a proposed project must be from a MP project, or what percentage of the project costs can be allocated outside of the location and scope of the MP projects. There are dozens of variables to consider when determining whether or not a proposed project meets the same objective or will be more cost-effective than a project identified in the MP. Determining the consistency for funding of a proposed project is an objective and sometimes time-consuming process. We encourage agencies, landowners, and other stakeholders interested in proposing projects to work with CPRA to ensure consistency for funding prior to proposing a project. Working with CPRA in advance of proposing a project allows time to properly consider the available data. Absent the time necessary to review proposed projects, CPRA will have to rely on the strictest interpretation of consistency for funding (project type, location, borrow, etc.) in order to make determinations.

Below are general guidelines to help develop restoration projects that are consistent with the MP. These guidelines are applicable to all restoration projects that receive state funding. Some MP project types utilize restoration techniques that are well established, such as marsh creation or barrier island restoration, and others are still being developed, such as ridge restoration and oyster barrier reef creation. There are many good projects that were not included in the plan due to funding constraints. While we feel that a unified effort at all levels is the best way to achieve our state's restoration goals, we understand that in some circumstances local and/or national priorities may deviate from projects outlined in the MP.

The State is fully supportive of these restoration efforts when state funding is not used and the restoration efforts do not conflict with the objectives of the MP.

Bank Stabilization – The MP defines bank stabilization as onshore placement of earthen fill and vegetation plantings designed to maintain shorelines in open bays, lakes, navigation channels, and bayous. In some cases, local conditions may call for the use of hard structures (e.g., shoreline protection) in areas identified for bank stabilization. Within the CWPPRA program and others receiving state funding, bank stabilization projects on federal navigation channels must also be consistent with the State's policy on navigation channel bank stabilization. That is, no greater than 25% of the overall cost of a project receiving state funding may be comprised of bankline stabilization or shoreline protection features on navigation channels.

Shoreline Protection – Shoreline protection is the installation of rock or low wave-action breakwaters to reduce wave energies on shorelines in open bays, lakes, sounds, channels and bayous. The locations for such measures are clearly defined in the master plan. There may be scenarios where on-the-ground conditions necessitate adjustments to project configurations in order to best meet localized needs. There also may be scenarios where conditions require us to consider non-rock alternatives to shoreline protection.

These projects also include work on navigation channels, which within CWPPRA and other programs must be consistent with the State's policy on navigation channel bank stabilization.

Barrier Islands – Creation and restoration of dune, beach, and back barrier marsh to restore or augment Louisiana's barrier islands and headlands is a critical part of the MP. Dredging and placement of sediment, to achieve these goals for the barrier islands identified in the MP will be considered consistent. Rock and other hard structures as primary project features on barrier islands are not consistent. However, in cases where engineering and technical analysis show that the inclusion of structural features is beneficial to long-term project performance (e.g., terminal groins, etc.), the feature will be consistent.

Hydrologic Restoration – Hydrologic restoration is the installation of features that restore natural hydrologic patterns either by conveying fresh water to areas that have been cut off by man-made features or by preventing the intrusion of salt water into fresh areas through man-made channels and eroded wetlands. The MP outlines 15 hydrologic restoration projects. When on-the-ground conditions dictate, we may consider alternative approaches to reach the same hydrologic goals in the targeted areas.

Marsh Creation – The MP identifies over 150,000 acres to be targeted for marsh creation and nourishment through sediment dredging and placement. Large, contiguous marsh creation projects are more cost-effective than many small isolated marsh creation projects. Generally, if a proposed marsh creation project is largely within the areas identified in the MP, it is consistent. Many of the marsh creation projects identified in the MP cover thousands of acres. Understanding that we cannot model every possible orientation of a multi-thousand acre marsh creation cell, we will make an effort to try to accommodate marsh creation projects that do not fall entirely within the footprint of MP projects.

Oyster Reef – Bioengineered oyster reefs can provide a number of benefits including creating oyster habitat, protecting shorelines, creating habitat for nekton, reducing saltwater exchange, and reducing fetch in open water. Some of the areas identified for oyster reef restoration in the MP, however, may not support oyster growth. For example, the results of the oyster habitat suitability model indicate that the oyster reef projects planned for Vermilion and Cote Blanche Bays are located in an area with a suboptimal salinity regime. The Master Plan team is continuing to evaluate these projects and identify alternative locations to maximize oyster propagation and provide additional benefits. Areas identified in the MP for shoreline protection that are determined to be more suitable for the use of bioengineered oyster reefs will be consistent.

Forested Wetland Restoration – Because the MP specifically targeted projects that maximize land gain, the restoration of existing forested wetlands could not be accurately accounted for. As such, forested wetland projects, with the exception of ridge restoration projects, are not identified in the MP. Nevertheless, it is recognized that coastal forests are vitally important ecosystem and landscape features to coastal Louisiana. Techniques to restore forested habitat are variable and site-specific and are generally consistent with the MP.

Ridge Restoration – The goal of ridge restoration is to reestablish historic ridges through local dredging, sediment placement, and vegetative plantings to restore natural ridge functions. Many ridge projects will require a complementary marsh creation component to mitigate for marsh lost in the construction of the ridge and to help protect the ridge. Marsh is not a substitute for the habitat or structural value of ridges, but could be considered a component of a ridge restoration project; serving to increase the longevity of a constructed ridge.

Sediment Diversion – Large scale sediment diversions—using new channels and/or structures to divert sediment and fresh water from the Mississippi and Atchafalaya Rivers into adjacent basins—are a cornerstone of the MP. Marsh creation in the influence area is not a substitute for the long-term benefits of sediment diversions, and is not consistent unless specifically identified in the MP.

Terraces - Marsh terracing as a restoration technique is not a feature of the 2012 MP. CPRA and the Master Plan FDT recognize the fetch reduction and habitat value provided by terracing; however, the primary goal of the restoration component of the 2012 Coastal Master Plan is to reverse land loss. We welcome parishes, non-profits, landowners, and other stakeholders to continue utilizing terraces to improve habitat and reduce fetch; however, in order to realize the goals of the MP, we must focus our resources on techniques such as marsh creation, which are more effective for large-scale ecosystem restoration.

With that in mind, we recognize that there are circumstances where having terraces as a small project component could improve the overall performance of a project.

1. Terracing is not a substitute for marsh creation.

2. Under certain circumstances, terracing may be used as an outfall management technique. In these situations, the terraces would prevent freshwater and sediment inputs from exiting the intended receiving area.
3. Terracing may be used to reduce fetch in large open water areas where long fetch distances increase shoreline erosion.
4. Terracing may comprise a maximum of 10% of project construction costs.

Borrow Sources - We should strive to use sediment from renewable sources and from outside the coastal system for marsh creation projects. In some cases, using internal borrow material is the only feasible or cost-effective option and therefore must be considered, but only if doing so would not accelerate land loss or increase wave action. In developing the Master Plan we analyzed projects that use in-system borrow, and a limited number of these projects are included in the Master Plan. The Terrebonne Bay Marsh Creation is one such project. In implementing this or any other large marsh creation project, we will conduct appropriate analyses to ensure that our efforts do not aggravate the problem we are working to solve.

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